Liubomir Chiriac*, Department of Mathematics and Statistics, University of Massachusetts
Amherst, Amherst, MA 01003. On the equality case of the Ramanujan Conjecture for Hilbert
modular forms.

Given a cuspidal unitary automorphic representations $\pi$ on $\text{GL}(2)$, the Ramanujan Conjecture asserts that each local component $\pi_v$ is tempered. This is equivalent to the statement that $|a_v(\pi)| \leq 2$, where $a_v(\pi)$ is the trace of the Langlands conjugacy class in $\text{GL}(2, \mathbb{C})$ associated to $\pi_v$. In the context of Hilbert modular forms we show that this inequality is strict when $\pi$ is of CM-type and $v$ has degree one. We also present examples when the equality case does occur for certain places $v$ of degree two. (Received February 02, 2019)